

What is claimed is:

1. A polypeptide having <sup>CN</sup> Calcineurin-binding activity, selected from the group consisting of: <sup>ID 5</sup> <sup>Fig. 9 p. 4760</sup>

(a) polypeptides comprising the amino acid sequence set forth in  
5 SEQ ID NO: 1 or SEQ ID NO: <sup>321-406</sup> 2;

(b) polypeptides "corresponding to" the polypeptides of (a) contained in NF-Atx family proteins; <sup>Fig. 9 p. 4760</sup>

(c) polypeptides of (a) or (b) in which one or more amino acids are added, deleted, substituted, and/or inserted; <sup>p. 4760</sup> and <sup>col. 2 1st PP</sup>

10 (d) fusion polypeptides comprising a polypeptide of (a), (b) or (c) and one or more other polypeptides. <sup>4756</sup> <sup>2nd col 4th PP.</sup>

2. A DNA encoding the polypeptide of claim 1.

3. A vector comprising the DNA of claim 2.

15 4. A transformant carrying the DNA of claim 2 or the vector of claim 3.

5. A method for producing the polypeptide of claim 1, <sup>the method</sup> comprising culturing the transformant of claim 4, <sup>and recovering</sup> the expressed polypeptide from the transformant or the culture supernatant. <sup>4756</sup> <sup>col. 1</sup> <sup>75</sup>

20 6. A method for screening a compound that inhibits the interaction between Calcineurin and NF-AT, the method comprising:

(a) contacting the polypeptide of claim 1 with Calcineurin in the presence or absence of a sample;

25 (b) detecting the binding activity of the polypeptide to Calcineurin; and

(c) selecting a compound that reduces the binding activity compared with the binding activity detected in the absence of the sample.

7. A compound isolable by the screening method of claim 6.

30 8. A pharmaceutical composition comprising the compound of claim 7 as an active ingredient.

9. A pharmaceutical composition comprising the polypeptide of claim 1 as an active ingredient.

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10.A method of suppressing immune, the method comprising administering the pharmaceutical composition of claim 8 to a patient in need of immunosuppression.

5 11.A method of suppressing immune, the method comprising administering the pharmaceutical composition of claim 9 to a patient in need of immunosuppression.

10 12.A method of preventing the hypertrophy of cardiac smooth muscle or vascular smooth muscle, the method comprising administering the pharmaceutical composition of claim 8 to a patient.

13.A method of preventing the hypertrophy of cardiac smooth muscle or vascular smooth muscle, the method comprising administering the pharmaceutical composition of claim 9 to a patient.

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